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ABSTRACT

This paper deals with the technical development of an attitude-scale technique and with some of the substantive results obtained using this technique. The first section describes the methodological research and the most recent version of the attitude toward mental illness scale. A total of six new types of attitude items were generated from Guttman facet-design principles and were hypothesized to have specific ordered relationships with six types of items from which simplex approximations had already been generated. Kaiser's recently proposed index was used to evaluate simplex approximations generated from randomly phrased and randomly ordered attitude items within a new hypothesized system. An original systematic extension and evaluation of Guttman facet-design principles indicated the usefulness of those principles and suggested a theory underlying the observed relationship among varying perceptions of self, of others, of values, of feelings, and of acts. The scale of the Attitude Behavior Scale-Emotionally Disturbed Persons was revised and is in experimental form. The second section of the paper briefly summarizes research in three areas: 1) attitudes toward mental retardation; 2) attitudes toward racial interaction; and 3) attitudes toward mental illness and/or emotional disturbance. (KJ)

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GUTTMAN FACET THEORY ANALYSIS OF ATTITUDES TOWARD MENTAL ILLNESS, MENTAL RETARDATION, AND RACIAL INTERACTION

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Attitude Scale Construction

This paper deals with the technical development of an attitude-scaling technique and with some substantive results obtained using that technique. The present section describes the methodological research and the most recent version of the attitude toward mental illness scale.

Introduction

Importance

A traditional problem in attitude research has been that of reconciling measures of stereotypic attitude responses with measures of actual behavior. The attitude "universe" has traditionally been defined as including only predispositions to action or to evaluation. Actual feelings, perceptions of group expectations, ethical positions, for example, are not generally considered as "attitudes." An approach to the traditional attitude - vs - behavior dichotomy proposed here is that the term attitude embraces a variety of behaviors, from stereotypic generalizations to specific behaviors which are favorable or unfavorable toward an object.

Outline

This first section of the paper, therefore, comprises a technical description of scale development and a summary presentation of the most recent scale. That most recent scale (Maierle, 1969) is designed to measure only six of 12 hypothesized attitudinal behaviors; a brief description of all 12 behaviors serves as introduction to the scale description.

Technical Description of Research

Problem

Although Guttman (1959) identified four levels[1] (Tables 1 and 2), or ordered types, of attitude items, Jordan (1968) found few studies employing items other than stereotypic ones. Jordan constructed a scale (Tables 3 and 4) using Guttman's facet analysis and obtained results consistent with Guttman's theory. Neither Guttman or Jordan (Table 5), however, systematically identified all the permutations, or level members, possible within their three-facet (four-level) or five-facet (six-level) systems. Further data from Jordan's scale: ABS-MR (Attitude Behavior Scale: Mental Retardation), dealing with the mentally retarded (Jordan, 1969a), left unanswered questions about variant item phrasing and about the effect of order of item administration upon hypothesized order of levels. No parallel work existed on attitudes toward emotionally distrubed persons: ABS-EDP.

Critique of Related Studies

Substantive research on attitudes toward the emotionally disturbed, much of it on parental or professional attitudes, has become more sophisticated. Earlier studies used no control groups and included few socio-cultural variables. Recent trends include use of control groups, cultural and cross-cultural data, and behavioral indices. On the other hand, the use of the term "attitude" remains ambiguous both in such research and in attitude theory in general. Most authors stress the predispositional character of attitude; for Guttman, however, attitude is a "delimited totality of behavior with respect to something."

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[1] See page 22 for facet definitions.

TABLE 1

Basic Facets Used to Determine Component Structure of an Attitude Universe

(A) Subject's Behavior		(B) Referent		(C) Referent's Intergroup Behavior	
a_1	belief	b_1	subject's group	c_1	comparative
a_2	overt action	b_2	subject himself	c_2	interactive

TABLE 2

Guttman Facet Profiles[1] of Attitude Subuniverses

	Subuniverse	Profile
1	Stereotype	$a_1\ b_1\ c_1$
2	Norm	$a_1\ b_1\ c_2$
3	Hypothetical Interaction	$a_1\ b_2\ c_2$
4	Personal Interaction	$a_2\ b_2\ c_2$

[1] Based on facets of Table 1.

TABLE 3

Basic Facets Used to Determine Conjoint[1] Struction of an Attitude Universe

(A) Referent		(B) Referent Behavior		(C) Actor		(D) Actor's Intergroup Behavior		(E) Domain of Actor's Behavior	
a_1	others	b_1	belief	c_1	others	d_1	comparison	e_1	symbolic
a_2	self	b_2	action	c_2	self	d_2	interaction	e_2	operational

[1] Conjoint struction is operationally defined as the ordered sets of the five facets from low to high (subscript 1's are low) across all five facets simultaneously. Not to be confused with conjoint measurement (Zinnes, 1969, p. 461).

TABLE 4

Conjoint Level, Profile Composition, and Labels for Six Types of Attitude Struction

Subscale Type-Level	Struction Profile[1]	Descriptive Conjoint Term
1	a_1 b_1 c_1 d_1 e_1	Societal stereotype
2	a_1 b_1 c_1 d_2 e_1	Societal norm
3	a_2 b_1 c_1 d_2 e_1	Personal moral evaluation
4	a_2 b_1 c_2 d_2 e_1	Personal hypothetical action
5	a_2 b_2 c_2 d_2 e_1	Personal feeling
6	a_2 b_2 c_2 d_2 e_2	Personal action

[1] Based on facets of Table 3

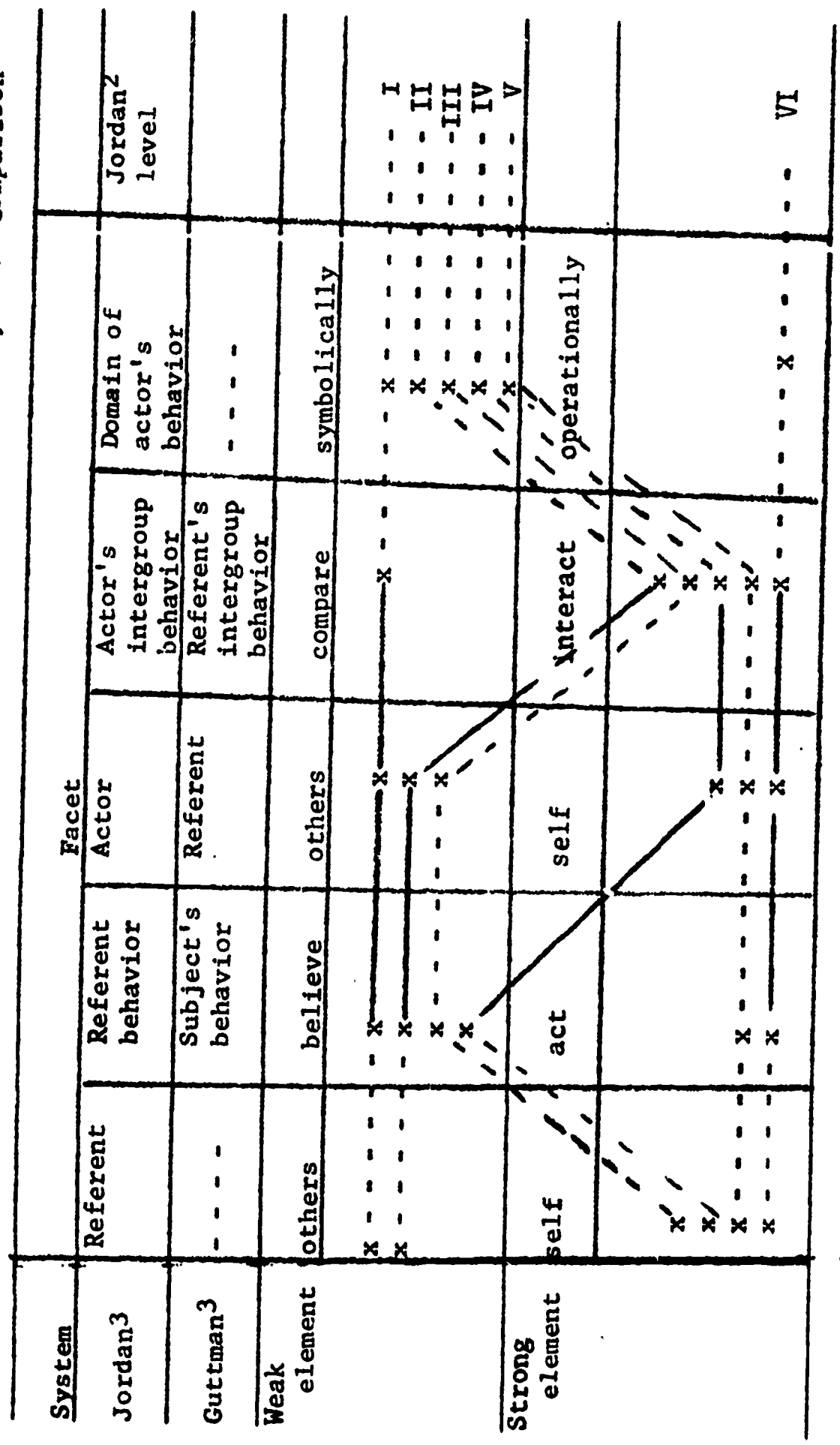
Specific Hypotheses

Jordan's extension (1969a) of the Guttman system implies, for five dichotomous facets (Table 3) by which attitude items could be analyzed, 32 permutations of facets, existing in varying numbers on six levels (Table 4). Jordan noted that his choice of six permutations, or level members, was arbitrary and that some permutations appeared semantically inconsistent. Analysis of all 32 permutations indicated (Maierle, 1969) that only 12 such level members are semantically consistent or make psychological sense. Guttman demonstrated that correctly-ordered level members would generate simplex approximations in level-by-level correlation matrices.[1] Seven sets of the 12 identified level members (called the seven semantic paths by Maierle, 1969), appeared subject to the criterion of simplex approximation.

[1] See page 23 for facet definitions.

TABLE 5

Schematic[1] of Guttman Four-level and Jordan Six-level Semantic Analyses: Comparison[2]



[1] Adapted from Maierle (1969).

[2] Guttman-level definitional statements comprise elements from only the three middle facets in the schematic; the corresponding lines are unbroken where Guttman and Jordan definitional statements coincide.

[3] See Tables 1 and 3.

Summary

Six new types of attitude items were generated (Jordan, 1968; 1969a) from Guttman facet-design principles and were hypothesized to have specific ordered relationships with six types of items from which simplex approximations had already been generated.

Specific Design of the Study: ABS-EDP

Simplex approximations were evaluated by procedures suggested by Kaiser (1962): level members were re-ordered to generate the best empirically possible simplex approximation and Q^2 values were computed for original and re-ordered matrices. To test the effect of order of administration on simplex approximation, sets of level members from each semantic path, or ordered group, were administered both in the hypothesized order and in a random order. Finally, all items in all level members were presented in one of four randomly assigned item phrasings; such random assignment was made to control for possible effects of various response biases.

Conduct of the Investigation

Since all level members of a semantic path were administered to the same subject at the same time, 14 groups of subjects were required--seven groups for administration of the semantic paths in the hypothesized orders, and seven groups for administration of the semantic paths in various random orders. An N of approximately 50 was set for each of the 14 groups of subjects, all enrolled in an introductory psychology or education course.

The seven randomly arranged semantic paths were randomly distributed to the first available approximately 350 subjects; the seven semantic paths, arranged in level-by-level order, were then randomly distributed to the next available approximately 350 subjects. Specific scoring and data-processing techniques were designed to accommodate random arrangement of

item directionality and random order of level-member administration.

Summary

Kaiser's recently proposed Q^2 index was used to evaluate simplex approximations generated from randomly phrased and randomly ordered attitude items within a new hypothesized system.

Analysis of the D- ABS-EDP

Q^2 evaluations were made of data from levels administered in random and hypothesized orders, of the data from random administrations rearranged in hypothesized order, and of the best empirically possible orders of all data. In Table 6 the various Q^2 values for all such matrices are indicated. Although significance levels for Q^2 are presently undefined, the exploratory character of the present research appeared to justify use of such a descriptive statistic.

For six of the seven paths analyzed, the Q^2 value for the randomly administered, randomly ordered matrix was less than the Q^2 value for the randomly administered, hypothetically ordered matrix. On the other hand, in no case, either of random administration or of hypothetically ordered administration, did the hypothesized ordering of correlations generate the best simplex approximation. The hypothesized ordering principle, therefore, generally produced a better-than-random order but never the best order. On the other hand, no general ordering principle which would improve on the hypothesized ordering principle was immediately obvious.

Evaluation of the Findings

The lack of an ordering principle obviously better than the hypothesized one and the generally close correspondence between hypothesized and best orders suggested that the hypothesized ordering principle, the level

Table 6

$\underline{Q}^2$ values for random and ordered administrations of seven semantic paths: administrative, hypothesized, and best orders

Path	Administrative Order						
	Random				Hypothesized[a]		
	Administration order		Hypothesis	Best order	Administration order		Best order
A	N=69	0.617	0.823	0.942	N=47	0.877	0.899
B	N=76	0.652	0.886	0.918	N=59	0.879	0.905
C	N=64	0.588	0.771	0.972	N=58	0.879	0.884
D	N=61	0.650	0.791	0.920	N=60	0.812	0.902
E	N=62	0.361	0.861	0.955	N=59	0.865	0.872
F	N=51	0.845	0.850	0.948	N=46	0.887	0.977
G	N=60	0.865	0.514	0.965	N=53	0.768	0.957

[a]For paths administered in hypothesized order, only two matrices were evaluated; for paths originally administered in a random order, random-order matrices were re-arranged to fit the hypothesis and re-evaluated; best matrices were determined for both administrative orders.

members indentified, and the orders hypothesized among those level members are useful extensions of the Guttman - Jordan formulations.

Although "disjoint struction," or content, across the "conjoint-struction" dimension, or structure, was generally constant, some systematic variation was noted. Orders of levels for best simplex approximations, provided by $\underline{Q^2}$ analysis, appeared in part affected by such systematic variation. The general trend of $\underline{Q2}$ ordering results, therefore, (a) did not indicate a consistent ordering principle for improving on the present conjoint-struction principle; (b) suggested that conjoint and disjoint struction interact; and (c) suggested a tentative ordering of items within the disjoint-struction dimension.

Implications of the Research Results: ABS-EDP

Validation of the experimental scales remains to be done. Socio-cultural variables identified by Jordan (1968) and personality variables described by Rokeach (1968) may be directly related to patterns of conjoint and disjoint struction. Additional research may clarify the relationships suggested among perceptions of self and others, of group expectations and moral evaluations, of feelings, and specific acts. Results from the present study indicate both a tentative order among such relationships and a theory underlying that order.

Significance as a Contribution to Knowledge

The present study comprises a first systematic extension of Guttman's facet analysis and, consequently, the first systematic evaluation of that extension. In particular, a paradigm has been proposed for the construction of attitude items; the paradigm is in contrast to current check-lists for item construction and is complementary to traditional factor analysis.

Summary

An original systematic extension and evaluation of Guttman facet-design principles indicated the usefulness of those principles and suggested a theory underlying the observed relationships among varying perceptions of self, of others, of values, of feelings, and of acts.

Scale Description

Complete Semantic Map

Preliminary research indicates that 12 varieties of attitude behavior may be usefully considered. These 12 varieties, existing on six levels, are: Level I: Societal Stereotype; Level II: (1) Personally-assigned Group Status; (2) Societal Norm; (3) Group-Assigned Personal Status; Level III: (1) Personal Moral Evaluation; (2) Self-concept; (3) Proclaimed Laws; (4) Group Identity; Level IV: (1) Personal Hypothetical Behavior; (2) Actual Group Behavior; Level V: Personal Feeling; and Level VI: Personal Action.

Scale Revision: ABS-EDP

Criteria for the scale described below were as follows: (1) Limitation to 48 items, eight items on each of six levels; (2) commonality of content, or disjoint struction, across all six levels; and (3) restriction to the six attitudinal behaviors first identified by Jordan (1968). The last criterion was adopted because the measurement of the Jordan behaviors appeared to be most useful--parallel substantive research was already underway, and the clinical "feel" of the behaviors appeared most valuable. In addition, the six behaviors identified by Jordan had already been checked for correspondence with an hypothesized order of such behaviors. The items for the six-level scale presented below, therefore, represent a first attempt to keep content constant across structure within the total semantic map listed above.

Items may be phrased in at least four different ways without a change of content (hence, on each level, two items in each of four variant phrasings, or eight items per level). Directionality may be positive or negative--i.e., agreement with an item may indicate either a favorable or an unfavorable attitude. Grammatical emphasis may be on the attitude object or on the person holding the attitude.

Examples of the four combinations of phrasings (i.e. for the ABS-EDP) are given below as follows: for Level I, item 1 is given in all four variant phrasings, and items 2 - 8 are given in only the first variant; for Levels II - VI, only item 1 is given, and only in the first variant phrasing.

Level I: Societal Stereotype

Item 1

1.1 We think that our marriages are less happy than those of most emotionally disturbed persons.
( ) agree ( ) uncertain ( ) disagree

1.2 We think that the marriages of most emotionally disturbed persons are happier than ours.

2.1 We think our marriages are happier than those of most emotionally disturbed persons.

2.2 We think that the marriages of most emotionally disturbed persons are less happy than ours.

Item 2 (1.1)

We think that we are less sexually attractive than most emotionally disturbed persons.

Item 3 (1.1)

We think that our dates are less good looking than most emotionally disturbed persons.

Item 4 (1.1)

We think that we are more careless when invited to someones home than are most emotionally disturbed persons.

Item 5 (1.1)

We think that we are less friendly than most emotionally disturbed persons.

Item 6 (1.1)

We think that our eating habits are less clean than those of most emotionally disturbed persons.

Item 7 (1.1)

We think that we are less helpful than most emotionally disturbed persons.

Item 8 (1.1)

When people lend things to us, we think that we are less reliable than most emotionally disturbed persons.

Level II: Societal Norm

Item 1 (1.1)

We think that some of us are married to emotionally disturbed persons.

Level III: Personal Moral Evaluation

We should marry persons who are emotionally disturbed.

Level IV: Personal Hypothetical Behavior

I would marry someone who is emotionally disturbed.

Level V: Personal Feeling

I do not feel unhappy about marrying an emotionally disturbed person.

Level VI: Personal Action

I am married to an emotionally disturbed person.

Use of the most recent scale revision, as indicated above, is subject to several recommendations about randomization. The items listed in Level I, above, should be placed in random order before administration; the same order should then be used across all levels, to permit easy comparisons. Each of the eight items for each level should be randomly

assigned to one of the four variant phrasings, as indicated for Level I, item 1; again, such randomization should be kept constant across all levels for the same item content. Scoring of items which have been randomized in phrasing is relatively simple for a small N; for a large N, the computer subroutine for rescoring such items is straight forward.

Conclusion

The authors are available for consultation on the adaptation of present ABS-EDP scales to particular needs and on the use of data-processing techniques to simplify scoring. Although the scale revision indicated above is still an experimental form, considerable substantive research has been done on similar instruments. The second section of this paper deals primarily with such substantive research in the area of mental retardation and racial interation.

Substantive Research

This section of the paper will briefly summarize research in three areas: (a) attitudes toward mental retardation, (b) attitudes toward racial (Black-White) interaction, and (c) attitudes toward mental illness and/or emotional disturbance. The order of treatment is purposive: the completeness of our emperical data is in this order.

Mental Retardation (ABS-MR)

The Attitude Behavior Scale-Mental Retardation (Jordan, 1969a) has been given to diverse groups in several nations (Gottlieb, 1970; Harker, 1969; Harrelson, 1969; Jordan, 1969_a and 1969_b; Jordan, Vurdelja, and Prazic, 1969; Morin, 1969).

Table 7 summarizes some of these data. The data are from regular teachers, teachers of the retarded, mothers of retarded and non-retarded, and employers

TABLE 7

Sample Size and Means for the ABS-MR for Sixteen Groups[1] in Five Nations

	ABS-MR Attitude Level	Germany					Texas			
		SER (148)	RST (74)	PMR (145)	MAN (83)	PNR (71)	SER (50)	RST (56)	PMR (50)	PNR (82)
1.	Stereotype	26	29	33	31	36	31	34	35	34
2.	Normative	31	32	33	33	37	35	36	40	34
3.	Personal Moral Eval.	49	49	47	47	46	44	45	47	43
4.	Personal Hypo. Action	47	43	47	42	40	46	44	49	44
5.	Personal Feeling	39	35	40	36	40	44	39	43	40
6.	Personal Action	33	31	36	28	28	35	29	39	29
7.	Total	226	220	237	217	227	235	227	254	224

		Belize	Colombia	United States			Yugoslavia	
				Kentucky	Texas	MSU-Ed 200		
		RST (523)	RST (405)	RST (55)	RST (56)	RST (633)	PMR (50)	PNR (50)
1.	Stereotype	36	34	29	34	35	34	33
2.	Normative	41	40	33	36	36	44	43
3.	Personal Moral Eval.	46	46	40	45	44	49	46
4.	Personal Hypo. Action	42	41	39	44	43	45	43
5.	Personal Feeling	40	41	37	39	40	44	40
6.	Personal Action	31	30	32	29	27	36	30
7.	Total	235	232	212	227	223	251	234

[1] SER= Special Education Rehabilitation
RST= Regular school teachers
PMR= Parents of mentally retarded
PNR= Parents of non-retarded
MAN= Manager - executives
Belize = British Honduras

and from several nations; British Honduras, Colombia, Germany, United States, and Yugoslavia.[1]

The test development data (Jordan, 1969_a) indicates reliabilities in the .80's and .90's and validity estimates via the "known group" method indicate the ABS-MR can differentiate degrees of favorableness of attitudes toward the mentally retarded.

The data from the ABS-MR thus far can be summarized as follows:

1. Attitudes have an affective - value - contactual base rather than a cognitive - knowledge one (Jordan, 1969_b).
2. Parents of the retarded are...."more sensitive to the positive attitudes of <u>others</u> (stereotypic level), more aware of what <u>they</u> believe the retarded <u>ought</u> to be able to do (moral evaluation), more positive in what <u>they would do</u> in situations with the retarded (hypothetical level), more positive in their <u>affect</u> toward the retarded (feeling level), and more positive in their <u>behavior</u> toward the retarded (action level)" (Morin, 1969).
3. Knowledge is positively related to the more cognitive <u>stereotypic and normative</u> attitude levels but does not predict the more personal -feeling - action levels.
4. Mothers of retarded and non-retarded do not differ in their perceptions of "what others do" -

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[1] Data have also been collected in Brazil and Israel and is underway in Iran.

the stereotypic and normative levels, but they do differ on all levels that involve their self-report of their "own self" in various interactions with the retarded.

Attitudes Toward Racial Interaction (ABS-BW-WN)

Tables 8-10 contain the data on attitudes of Blacks[2] toward Whites (BW) and of Whites toward Negroes[2](WN). The seven attitude areas assessed were:

(C) Characteristics, Personal (i.e. racial)

(E) Education

(H) Housing

(J) Jobs

(L) Law and Order

(P) Political activism (i.e. racial)

(W) War and militiary

The subjects in Tables 8 and 9 (Hamersma, 1969, pp 337,338) were adults in the greater Detroit "ghetto area" and the subjects in Table 10 (Erb, 1969, p. 87) were sophomore education students at Michigan State University.

The data from the ABS-BW/WN scales[3] thus far can be summarized as follows:

1. Blacks are more positive toward Whites than visa versa.
2. The greatest difference between Blacks and Whites exist in the areas of Jobs, Law and Order, and Political Activism:
   a) Blacks feel that jobs are more open,

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2 This choice of "terms" was chosen in consultation with Black officals of the Urban Adult Education Institute, Detroit, Michigan.

3 A short form of these seven scales, containing the two "best" items from each, is currently being given in a nation-wide research project. Contact Jordan for information.

TABLE 7

Sample size, means, and standard deviations for the total Black sample on the ABS: BW content scale areas.

Variable	C N	C M	C SD	E N	E M	E SD	H N	H M	H SD
1. Stereotype	30	25.33	3.59	33	26.35	5.29	22	[illegible]	3.71
2. Normative	30	31.50	5.86	33	[illegible]	7.47	[illegible]	[illegible]	3.96
3. Moral Eval.	30	34.97	4.56	33	[illegible]	5.67	[illegible]	[illegible]	4.75
4. Hypothetical	30	35.60	4.37	33	[illegible]	5.21	[illegible]	32.95	6.08
5. Feeling	30	34.20	4.12	33	[illegible]	5.19	[illegible]	34.68	6.19
6. Action	30	46.77	6.48	[illegible]	43.00	[illegible]	[illegible]	[illegible]	8.44
7. Total	30	[illegible]	[illegible]	33	205.56	[illegible]	[illegible]	[illegible]	[illegible]
8. Stereotype	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9. Normative	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.35
10. Moral Eval.	30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11. Hypothetical	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12. Feeling	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13. Action	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14. Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15. Efficacy-Inf.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16. Efficacy-Amt.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17. Nature	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18. Amount	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.85
19. Avoidance	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.38
20. Income	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.85
21. Alternatives	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.66	[illegible]	[illegible]	1.65
22. Enjoyment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23. Age	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24. Educ. Amount	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25. Income-Amt.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26. Rel. Impor.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27. Rel. Alter.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28. Self	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29. Child Rearing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30. Birth Control	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31. Automat.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
32. Rule Amen.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.06
33. Local Aff	[illegible]	2.67	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.11
34. Fed. Aff	[illegible]	2.87	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.01
35. Planning	[illegible]	3.35	[illegible]	[illegible]	[illegible]	.69	22	[illegible]	.67
36. Prejud. Amt.	[illegible]	4.03	1.05	31	3.87	1.12	22	[illegible]	1.15

Variable	J N	J M	J SD	L & O N	L & O M	L & O SD	P N	P M	P SD	W & M N	W & M M	W & M SD
1. Stereotype	23	[illegible]	3.46	16	32.43	2.55	18	22.83	3.22	17	25.23	2.84
2. Normative	23	31.73	6.58	16	30.00	4.36	18	35.11	5.23	17	31.52	5.26
3. Moral Eval.	23	33.04	6.03	16	31.12	3.91	18	36.38	4.56	17	31.88	5.34
4. Hypothetical	23	34.21	5.97	16	32.31	4.43	18	36.83	3.22	17	31.52	4.28
5. Feeling	23	33.47	5.21	16	32.06	5.06	18	37.44	3.80	17	33.82	4.15
6. Action	22	46.36	4.60	16	31.37	12.61	18	40.61	8.37	17	26.76	9.49
7. Total	23	[illegible]	27.75	16	189.31	24.09	18	209.22	19.09	17	180.76	14.43
8. Stereotype	[illegible]	[illegible]	5.37	16	34.62	6.26	18	32.05	6.78	17	33.05	8.67
9. Normative	[illegible]	33.13	7.36	16	32.43	7.68	18	33.33	6.44	17	33.52	7.51
10. Moral Eval.	[illegible]	35.82	6.86	16	35.43	5.54	19	36.61	6.47	17	37.52	5.92
11. Hypothetical	[illegible]	[illegible]	3.60	16	35.12	6.14	18	37.44	5.41	17	38.32	3.95
12. Feeling	[illegible]	[illegible]	5.02	16	37.12	5.57	18	37.72	5.01	17	36.58	5.81
13. Action	[illegible]	[illegible]	4.87	16	26.81	10.75	18	36.33	7.26	17	25.82	9.43
14. Total	[illegible]	[illegible]	[illegible]	16	201.56	29.32	18	213.50	28.09	17	205.35	27.36
15. Efficacy-Inf.	[illegible]	[illegible]	3.91	16	23.62	2.60	18	23.33	2.22	17	24.03	2.88
16. Efficacy-Amt.	[illegible]	[illegible]	4.02	16	27.81	4.44	18	28.05	4.19	17	29.00	4.79
17. Nature	[illegible]	[illegible]	.85	16	2.93	.92	18	3.00	.84	17	2.76	.75
18. Amount	[illegible]	4.82	.83	16	4.75	1.00	18	4.61	1.03	17	4.70	.98
19. Avoidance	23	[illegible]	1.44	16	3.18	1.32	18	3.00	1.18	17	3.11	1.31
20. Income	22	3.54	1.81	16	3.50	1.89	18	3.27	1.90	17	3.35	1.93
21. Alternatives	[illegible]	3.55	1.61	16	3.37	1.70	18	3.38	1.68	17	3.00	1.76
22. Enjoyment	[illegible]	[illegible]	.68	16	4.25	1.06	18	4.11	1.13	17	4.05	1.14
23. Age	[illegible]	2.65	.93	16	2.56	.81	18	2.55	.78	17	2.47	.87
24. Educ. Amount	[illegible]	[illegible]	1.02	16	4.25	1.12	18	4.33	.97	17	4.11	1.21
25. Income-Amt.	[illegible]	2.34	.93	16	2.25	.93	18	2.00	.84	17	2.11	.99
26. Rel. Impor.	[illegible]	[illegible]	1.31	16	4.25	1.06	18	4.22	1.06	17	4.17	1.01
27. Rel. Alter.	[illegible]	3.21	1.34	16	3.31	1.30	18	3.33	1.28	17	3.23	1.25
28. Self	[illegible]	[illegible]	.59	16	2.50	.51	18	2.50	.51	17	2.58	.50
29. Child Rearing	[illegible]	3.18	.66	16	3.18	.75	18	2.88	.96	17	3.05	.89
30. Birth Control	[illegible]	3.47	.65	16	3.50	.63	18	3.44	.61	17	3.47	.71
31. Automat.	[illegible]	3.17	.85	16	3.18	.98	18	3.11	.96	17	3.23	.97
32. Rule Amen.	[illegible]	3.00	1.04	16	3.12	1.02	18	2.94	.99	17	2.88	1.11
33. Local Aff	[illegible]	2.87	1.10	16	2.43	1.03	18	2.72	1.01	17	2.58	1.00
34. Fed. Aff	[illegible]	3.13	1.05	16	2.87	.95	18	3.05	.80	16	3.00	1.09
35. Planning	[illegible]	3.56	.59	16	3.56	.62	18	3.55	.61	17	3.64	.60
36. Prejud. Amt.	22	4.34	.99	16	4.18	1.10	18	4.11	1.07	17	4.05	1.08

TABLE 8

Sample size, means, and standard deviations for the total White sample on the ABS: WN content scale areas.

	Variable	C			E			H			J			L & O			P			W & N		
		N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
1.	Stereotype	71	25.66	3.29	67	21.67	3.61	47	25.23	3.35	63	21.14	3.26	41	22.68	4.00	73	31.01	3.37	49	25.93	3.33
2.	Normative	71	30.79	4.23	67	32.28	6.83	47	24.76	6.54	63	29.88	6.13	41	32.68	4.75	73	31.43	5.65	49	33.30	5.67
3.	Moral Eval.	71	37.76	3.37	67	39.85	2.72	47	37.21	4.09	63	36.76	4.42	41	37.47	2.31	73	38.11	3.26	49	38.34	2.52
4.	Hypothetical	71	37.93	3.10	67	36.81	3.74	47	36.70	4.17	63	38.03	2.60	41	39.29	2.90	73	37.19	3.77	49	37.00	3.79
5.	Feeling	71	37.09	3.67	67	38.05	3.74	47	37.61	3.60	63	37.84	3.72	41	37.22	3.85	73	36.39	4.21	49	37.61	4.16
6.	Action	71	45.16	7.65	67	42.06	9.02	47	30.93	12.11	63	41.52	13.65	41	27.43	9.08	73	33.57	11.40	49	24.30	11.25
7.	Total	71	214.39	15.66	67	210.72	17.63	47	192.46	20.39	63	205.19	19.09	41	196.78	14.61	73	207.72	20.10	49	196.51	15.01
8.	Stereotype	71	30.79	5.78	67	30.09	6.35	47	29.36	6.85	63	29.74	6.09	41	29.87	6.60	73	30.01	6.62	49	28.98	6.42
9.	Normative	71	31.76	6.43	67	29.31	7.05	47	28.63	7.14	63	18.77	7.00	41	30.85	6.60	73	30.38	6.22	49	29.73	6.74
10.	Moral Eval.	71	37.04	4.63	67	38.93	4.24	47	35.95	5.89	63	37.68	4.35	41	38.36	5.07	73	37.13	4.79	49	37.73	5.08
11.	Hypothetical	71	38.75	2.93	67	37.90	4.23	47	35.57	6.11	63	37.30	4.48	41	37.80	5.19	73	36.80	4.50	49	37.30	5.72
12.	Feeling	71	38.74	3.81	67	38.21	4.79	47	36.68	5.26	63	38.44	4.05	41	38.04	4.35	73	36.24	5.27	49	37.55	5.85
13.	Action	71	44.09	7.65	67	41.69	10.01	47	30.19	11.75	63	40.60	13.81	41	26.78	8.69	73	32.32	10.78	49	23.93	11.19
14.	Total	71	221.18	21.56	67	216.12	24.76	47	196.40	32.09	63	212.55	26.03	41	201.73	26.22	73	202.91	29.00	49	195.24	27.50
15.	Efficacy-Cont.	70	24.43	4.27	67	23.90	4.17	47	24.38	4.54	63	24.03	4.18	41	24.24	4.25	72	24.63	4.30	49	24.71	4.29
16.	Efficacy-Int.	70	28.77	3.52	67	28.94	3.62	47	28.51	3.81	63	28.63	3.50	41	28.61	3.47	72	28.70	3.55	49	28.81	3.61
17.	Nature	71	2.83	.82	67	2.69	.74	47	2.76	.63	63	2.73	.74	41	2.78	.61	73	2.82	.69	49	2.75	.63
18.	Amount	71	4.40	1.23	67	4.13	1.35	47	4.44	1.13	63	4.36	1.26	41	4.51	1.07	73	4.38	1.20	49	4.44	1.11
19.	Avoidance	70	3.90	1.16	66	3.94	1.22	46	3.89	1.17	62	4.00	1.08	41	3.92	1.10	72	3.88	1.17	48	3.87	1.16
20.	Income	68	2.11	1.45	64	2.03	1.44	46	2.17	1.52	61	2.03	1.44	40	2.00	1.41	70	2.08	1.42	48	2.16	1.50
21.	Alternatives	66	2.77	1.90	62	2.73	1.92	45	2.77	1.91	60	2.73	1.93	39	2.66	1.91	68	2.72	1.89	47	2.70	1.91
22.	Enjoyment	71	4.46	.96	67	4.52	.89	47	4.53	.88	63	4.54	.91	41	4.56	.74	73	4.49	.95	49	4.55	.86
23.	Age	71	2.87	.99	67	2.90	.97	47	3.06	1.05	63	2.92	.98	41	3.02	1.08	73	2.89	1.00	49	2.91	1.03
24.	Educ. Amount	71	4.76	.54	67	4.69	.61	47	4.70	.62	63	4.68	.61	41	4.65	.65	73	4.75	.54	49	4.71	.61
25.	Income-Amt.	71	2.23	1.04	67	2.36	.97	47	2.40	1.05	63	2.34	.97	41	2.34	1.01	73	2.24	.98	49	2.28	1.00
26.	Rel. Impor.	71	4.12	1.02	67	4.06	1.02	47	4.02	1.11	63	4.07	1.03	41	4.00	1.11	73	4.15	1.00	49	4.06	1.08
27.	Rel. Adher.	71	3.95	1.21	67	3.96	1.12	47	3.97	1.22	63	4.00	1.12	41	4.02	1.15	73	3.97	1.20	49	4.04	1.19
28.	Self	71	2.69	.76	67	2.82	.78	47	2.78	.77	63	2.82	.73	41	2.65	.72	73	2.69	.77	49	2.73	.73
29.	Child Rearing	71	2.81	.74	67	2.84	.85	47	2.74	.79	62	2.80	.84	41	2.75	.79	73	2.80	.73	49	2.79	.73
30.	Birth Control	71	3.47	.65	67	3.54	.68	47	3.48	.71	63	3.50	.69	41	3.41	.70	73	3.46	.66	49	3.38	.67
31.	Automat.	71	3.26	.84	67	3.33	.84	47	3.34	.81	63	3.33	.84	41	3.24	.86	73	3.31	.79	49	3.24	.87
32.	Rule Adher.	71	2.80	.78	67	2.78	.83	47	2.68	.81	63	2.6	.81	41	2.65	.79	73	2.82	.78	49	2.65	.75
33.	Local Aid	71	2.81	1.04	67	2.93	.97	47	2.78	.95	63	2.95	.95	41	2.90	.97	73	2.83	1.00	49	2.89	.98
34.	Fed. Aid	71	2.71	1.09	67	2.81	1.03	47	2.63	1.00	63	2.77	1.03	41	2.70	1.00	73	2.71	1.06	49	2.69	1.06
35.	Planning	71	3.15	.66	67	3.21	.69	47	3.12	.71	63	3.17	.68	41	3.09	.66	73	3.13	.67	49	3.10	.71
36.	Prejud. Amt.	71	4.26	.79	67	4.34	.66	47	4.36	.52	63	4.33	.64	41	4.29	.64	73	4.30	.77	49	4.30	.65

TABLE 10

N's, means, and standard deviations of the variables for the ABS: BW/WW empathy study.

Variable			Characteristics			Education		
			N	M	SD	N	M	SD
Attitude Content	1.	Stereotype	356	[illegible]	[illegible]	312	20.52	3.54
	2.	Normative	[illegible]	[illegible]	4.15	312	30.08	5.98
	3.	Moral Eval.	[illegible]	[illegible]	4.24	312	38.63	3.83
	4.	Hypothetical	[illegible]	[illegible]	[illegible]	312	35.13	4.38
	5.	Feeling	[illegible]	[illegible]	[illegible]	312	36.35	4.35
	6.	Action	[illegible]	[illegible]	[illegible]	312	41.20	8.41
	7.	Total	[illegible]	[illegible]	16.10	312	202.01	18.73
Attitude Intensity	8.	Stereotype	[illegible]	[illegible]	5.46	312	31.68	6.62
	9.	Normative	[illegible]	[illegible]	[illegible]	312	29.73	6.66
	10.	Moral Eval.	[illegible]	[illegible]	[illegible]	312	36.93	5.28
	11.	Hypothetical	[illegible]	[illegible]	[illegible]	312	35.96	5.48
	12.	Feeling	[illegible]	[illegible]	[illegible]	312	36.74	5.66
	13.	Action	[illegible]	[illegible]	[illegible]	312	40.07	9.28
	14.	Total	[illegible]	[illegible]	[illegible]	312	211.11	28.32
Value	15.	Efficacy-Cont.	[illegible]	[illegible]	[illegible]	[illegible]	23.29	3.47
	16.	Efficacy-Int.	[illegible]	[illegible]	[illegible]	[illegible]	28.12	3.80
Contact	17.	Nature of	[illegible]	[illegible]	[illegible]	[illegible]	2.48	1.04
	18.	Amount of	[illegible]	[illegible]	[illegible]	[illegible]	3.80	1.52
	19.	Avoidance	[illegible]	[illegible]	[illegible]	[illegible]	3.83	1.19
	20.	Income	[illegible]	[illegible]	[illegible]	301	2.12	1.64
	21.	Alternatives	344	[illegible]	[illegible]	303	2.41	1.75
	22.	Enjoyment	348	[illegible]	[illegible]	[illegible]	4.43	1.00
Demo-graphic	23.	Age	356	[illegible]	.27	[illegible]	1.98	.25
	24.	Educ. Amount	356	[illegible]	.39	[illegible]	4.13	.38
	25.	Income Amount	351	[illegible]	.73	[illegible]	1.23	.66
Religio-sity	26.	Rel. Impor.	356	[illegible]	[illegible]	312	3.73	.98
	27.	Rel. Adher.	354	3.47	[illegible]	[illegible]	3.49	1.22
Change Orien-tation	28.	Self	355	2.57	[illegible]	311	2.58	.70
	29.	Child Rearing	354	[illegible]	[illegible]	[illegible]	2.93	.68
	30.	Birth Control	356	[illegible]	[illegible]	312	3.49	.60
	31.	Automation	355	[illegible]	.77	311	3.00	.76
	32.	Rule Adher.	356	[illegible]	.78	312	2.82	.77
Education	33.	Local Aid	354	[illegible]	.90	310	2.74	.90
	34.	Fed. Aid	353	[illegible]	[illegible]	309	2.81	.87
	35.	Planning	354	[illegible]	.59	310	3.15	.58
Prejudice	36.	Prejudice-Am	356	[illegible]	[illegible]	312	4.05	.83
Empathy	44.	Empathy	211	[illegible]	[illegible]	194	35.51	5.84

available, fairer, et cetera to Whites.

b) Blacks feel overwhelmingly that "Law and Order" is on the side of the White.

c) Whites see Blacks much more willing to agitate, march for, and politicize for a cause.

3. The Newsweek magazine surveys (Brink and Harris, 1967) of Negro perceptions of "gains" in education and "losses" in jobs and housing seem to be supported by the data.

4. The Report of the National Advisory Commission on Civil Disorders seems to be supported in some of the attitude areas such as jobs, law and order, and political activism:

> This is our basic conclusion:
>
> Our nation is moving toward two societies, one black, one white----separate and unequal..... (1968, pp. 1-2).

THE ABS-BW/WN DATA INDICATE THAT UNEQUALNESS IS AT LEAST PERCEIVED BY BOTH BLACKS AND WHITES!

Attitudes Toward Mental Illness/Emotional Disturbance (ABS-EDP)

Maierle's (1969) work and follow-up work underway by Whitman (1970) indicate that attitudes toward mental illness follow the same pattern as attitudes toward mental retardation and racial interaction.

The data of Table 11 represent a summary of Maierle's work on the initial version of the ABS-EDP. The data are classified two ways: (1) by order of "level" of administration - one sequentially and one with the "levels" administered in random order, and (2) by semantic path.[1] Even a cursary examination of Table 11 indicates an amazing similarity

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[1] See previous discussion of the 12 "level members" and the seven "semantic paths" and definitions on page 22 and 23.

TABLE 11

Sample Sizes And Means For The Seven Semantic Paths[1] Of The Test Development Samples

	Levels[2]	Semantic Paths						
		A(47) M	B(59) M	C[3](58) M	D(60) M	E(59) M	F(46) M	G[3](52) M
Level-By-Level Administration	1. Stereotype	34	35	36	34	35	33	35
	2. Normative	35	36	43	43	33	32	44
	3. Personal Moral Eval.	50	35	50	40	35	38	40
	4. Personal Hypo Action	50	47	48	47	49	45	45
	5. Personal Feeling	44	45	44	45	46	43	--
	6. Personal Action	39	39	42	40	40	40	--
Random Order Administration	1. Stereotype	34	32	35	35	33	32	34
	2. Normative	40	37	39	39	33	31	40
	3. Personal Moral Eval.	49	35	50	40	35	39	39
	4. Personal Hypo Action	47	49	47	47	46	46	44
	5. Personal Feeling	43	42	44	43	43	42	--
	6. Personal Action	38	40	38	38	37	38	--

[1]See page 22 and 23 for definitions.

[2]Path"G" has four levels only.

[3]Path "C" is the path depicted in Table 4 and the one used in the revised ABS-EDP.

between the means of a particular level across the seven semantic paths. This is likely produced by the structure imposed by the facet design which gives each of the levels the same number of "weak" and "strong" elements within a facet - see Table 3 for facets (large case) and elements (small case). An extensive analysis of facet theory and the scale construction rationale back of the ABS-EDP in contained in Maierle's (1969) original work.

The work of Whitman will speak more definitively but at present we would summarize the ABS-EDP data as follows:

1. Knowledge about mental illness will increase positive attitudes only at the Stereotypic and Normative levels; i.e. the cognitive and other-oriented levels.
2. Amount of contact per se will not increase positive attitudes at the more personal-action levels (i.e. 3-6: see Tables 1-5) unless amount is concurrent with perceived enjoyment of the contact, and some sense of voluntary choice of the contact.
3. Contact per se will increase intensity of attitude but may only increase the intensity of the attitude with which one starts, whether it was negative or positive.

Definitions

Level - degree of attitude strength specified by the number of strong and weak facets in the member(s) of that level; in the present system, six ordered levels are identified: level 1 is characterized by the unique member having five weak facets; level 2, by member having four weak and one strong facet.....level 6, by the unique member having five strong facets.

Semantic Path - ordered set of level members, typically six, such that each member has one more strong facet than the immediately preceding member and one less strong facet than the immediately following member.

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